Title (en)

QUASICRYSTALLINE MATERIAL AND SEMICONDUCTOR DEVICE APPLYING THE SAME

Title (de)

QUASIKRISTALLINES MATERIAL UND HALBLEITERBAUELEMENT DAMIT

Title (fr)

MATÉRIAU QUASICRYSTALLIN ET DISPOSITIF SEMI-CONDUCTEUR L'UTILISANT

Publication

EP 3734677 A1 20201104 (EN)

Application

EP 20164805 A 20200323

Priority

KR 20190050723 A 20190430

Abstract (en)

A quasicrystalline material and a semiconductor device to which the quasicrystalline material is applied are disclosed. A quasicrystalline material is based on a quasicrystalline element having one or more axis of symmetry (e.g., a 2-fold axis, a 3-fold axis, a 5-fold axis, or a higher fold axes of symmetry). The quasicrystalline material is capable of phase changes between a quasicrystalline phase and an approximant crystalline phase having a further regular atom arrangement than the quasicrystalline phase. The quasicrystalline material that may be used as a phase change material and may be applied to a phase change layer of a semiconductor device.

IPC 8 full level

H01L 45/00 (2006.01)

CPC (source: CN EP KR US)

C22C 21/02 (2013.01 - CN US); **C22C 30/00** (2013.01 - CN); **H10N 70/231** (2023.02 - CN EP KR US); **H10N 70/826** (2023.02 - EP); **H10N 70/841** (2023.02 - KR); **H10N 70/881** (2023.02 - CN EP KR US); C22C 2200/06 (2013.01 - US)

Citation (search report)

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Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

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DOCDB simple family (application)

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